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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,829	11/20/2003	Meredith J. Ringel	MERL-1506	8583

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Patent Department  
Mitsubishi Electric Research Laboratories, Inc.  
201 Broadway  
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EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/717,829

Applicant(s)

RINGEL ET AL.

Examiner

Stephen G. Sherman

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the apparatus with the means for generating a plurality of sequences of touch samples must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 23 each recite "...generating a plurality of sequences of touch samples when a plurality of users simultaneously touch the touch sensitive surface, each sequence of samples being identified with a particular user generating the sequence of samples." The closest explanation in the specification is in paragraph [0029] where it states: "The coupling 112 enables a unique identification (ID) between each user and each touch sample, even when multiple users simultaneously generate multiple touch samples." This explanation is insufficient because there is no explanation as to how the different users are identified by the touch surface, therefore there is insufficient explanation as to how the sequences of samples are identified with a particular user.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3-4, 6, 19 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Geaghan et al. (US 2003/0063073).

***Regarding claim 1***, Geaghan et al. discloses a graphic multi-user interface for resolving conflicts, comprising:

a touch sensitive surface (Figure 4, touch surface 11);

means for displaying a plurality of items on the touch sensitive surface (Figure 5 and paragraph [0068].);

means for generating a plurality of sequences of touch samples when a plurality of users simultaneously touch the touch sensitive surface, each sequence of samples being identified with a particular user generating the sequence of samples (Figure 1 and Paragraphs [0047]-[0052] explain that a first and second sequence of signals are generated for first and second touches and when the touches overlap, i.e. occur at the

same time, the signals can be subtracted to determine the location of each of the touches, therefore associating the touch with one of the users.);

means for associating each sequence of samples with a particular item, the particular item having an associated state and a policy (Figure 5 shows different touch buttons 67 and 68 which the users can touch, and the signals generated by touching the screen would be associated with one of the buttons. The buttons would have a state of being located at a position on the touch panel and a policy of being pressed or unpressed.);

generating an event for each associated sequence of samples (Paragraph [0052] explains that the touch location can be determined for each set of signals resulting from a touch, and if an area of the screen as in Figure 5 is touched the event for that set of signals will take place.); and

means for determining a decision with respect to a conflict affecting a next state of the particular item according to the events from the plurality of users, the state and the policy (Figures 1 and 5 and Paragraphs [0047]-[0052] explain that a conflict occurs when two users touch the screen at the same time and that the touch can be seen to happen intermediate of the two locations, but by subtracting the signals from each other the conflict can be avoided and each individual touch location can be determined even when multiple users use the table.).

**Regarding claim 3**, Geaghan et al. discloses the graphic multi-user interface of claim 1, in which the particular item is active when a particular user is touching the particular item (Figure 5. items 67 and 68 would be active if a user pressed them.).

**Regarding claim 4**, Geaghan et al. discloses the graphic multi-user interface of claim 1, in which one particular user generates multiple sequences of sample for multiple touches (Paragraph [0037]).

**Regarding claim 6**, Geaghan et al. discloses the graphic multi-user interface of claim 5, in which each sample includes a speed and trajectory of the touch (Figure 2 and paragraph [0053], the rate of change is the speed and trajectory of the touch.).

**Regarding claim 19**, Geaghan et al. discloses the graphic multi-user interface of claim 1, in which the decision is based on a signal intensity of the events (Figure 2 and paragraph [0053] explain that the conflict of overlapping touches is overcome based on the intensity, i.e. rate of change, of the signal.).

**Regarding claim 23**, this claim is rejected under the same rationale as claim 1.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2, 5, 7-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geaghan et al. (US 2003/0063073).

***Regarding claim 2***, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the state of the item includes an owner, an access code, a size, an orientation, a color and a display location.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the state of the item includes an owner, an access



code, a size, an orientation, a color and a display location in order to provide for the usability of the touchable icons on the touch panel.

**Regarding claim 5**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that each sample includes a user ID, a time, a location, an area and a signal intensity of the touch.

However, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that each sample includes a user ID, a time, a location, an area and a signal intensity of the touch in order for the system to identify which user touched the panel and at what point the touch panel was touched.

**Regarding claim 7**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the policy is global when the conflicts affects an application as a whole.

However, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that the policy is global when the conflicts affects an application as a whole since global is a term used to encompass all of something.

**Regarding claim 8**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the policy is element when the conflicts affects a particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the policy is element when the conflicts affects a particular item since element is a term that relates to a singular object.

***Regarding claim 9***, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the policy is privileged user depending on privilege levels of the plurality of users.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the policy is privileged user depending on privilege levels of the plurality of users since the privilege level of the user would be determining that access to the application/item.

***Regarding claim 10***, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that each user has an associated rank and the decision is based on the ranks of the plurality of users.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that each user has an associated rank and the decision is based on the ranks of the plurality of users because this would allow users with more

authority, such as a boss at a meeting, to have more control over items than his employees.

**Regarding claim 11**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the policy is based on a votes made by the plurality of users.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the policy is based on a votes made by the plurality of users because determining an action to occur is often times voted on by people to determine what is to be done.

**Regarding claim 12**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the policy is release, and the decision is based on a last user touching the particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the policy is release, and the decision is based on a last user touching the particular item because this would indicate that the other users have let go of the item and have relinquished control over to the user touching the item last.

**Regarding claim 13**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision is based on an orientation of the particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision is based on an orientation of the particular item because the orientation would indicate which user the item is pointing towards.

**Regarding claim 14**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision is based on a location of the particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision is based on a location of the particular item because if an item is closer to one user than another it would mean that the particular user would have more of a right to the object.

**Regarding claim 15**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision is based on a size of the particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision is based on a size of the particular item because a size would indicate whether the item is meant to be viewed by all people using the touch device or whether only one user is meant to view the item.

**Regarding claim 16**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the graphic multi-user interface further comprises means for displaying an explanatory message related to the decision.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the graphic multi-user interface further comprises means for displaying an explanatory message related to the decision in order to allow all of the users the ability to know what has occurred with respect to the item in question.

**Regarding claim 17**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision is based on a speed of the events.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision is based on a speed of the events because the speed would indicate how fast the touch panel was touched therefore determining which user was fastest to touch a particular item.

**Regarding claim 18**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision is based on an area of the events.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision is based on an area of the events because if an item is in an area closer to one user than another that user would have more of a right to the object.

**Regarding claim 20**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision tears the particular item into multiple parts.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision tears the particular item into multiple parts because this would allow for a life-like feel to the touch panel since a document tearing in half would occur if the event took place with a real document.

**Regarding claim 21**, Geaghan et al. discloses the graphic multi-user interface of claim 1.

Geaghan et al. fail to teach that the decision duplicates the particular item.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the decision duplicates the particular item because this would allow for multiple users to view the same item at the same time without conflict.

***Regarding claim 22***, Geaghan et al. discloses the graphic multi-user interface of claim 7.

Geaghan et al. fail to teach that the application has a global state, and further comprising: allowing a change to the global state only if all times are inactive, no users are touching the touch sensitive surface or any of the plurality of items.

However, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made that the application has a global state, and further comprising: allowing a change to the global state only if all times are inactive, no users are touching the touch sensitive surface or any of the plurality of items because a global state would effect the entire system and if the system is being used the system cannot be changed so the change would need to occur when all of the users are not touching the panel.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Geaghan et al. (US 2003/0067447) discloses of a touch system for determining the position of touches from multiple users on a touch surface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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A handwritten signature in black ink, appearing to read 'R. Hjerpe', with a stylized, cursive script.

**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**